

**CONCISE EXPLANATORY STATEMENT**  
**Fall Protection Requirements for Construction**

Public Hearings: October 16<sup>th</sup> and 17<sup>th</sup>, 2012

Adoption: February 4, 2013

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## **I. Purpose of Rulemaking**

The Department of Labor and Industries (L&I) Division of Occupational Safety and Health (DOSH) worked with a fall protection stakeholder group to consolidate the fall protection requirements located in Chapter 296-155 WAC, Safety Standards for Construction Work, into one coherent set of requirements. DOSH is merging Parts C-1 and K, creating one location where fall protection requirements are located for construction. In addition, we asked the stakeholder group to help identify any technical changes needed due to industry developments and to ensure that any gap in current fall protection requirements would be addressed and rectified by this rule update. Throughout the process, clear and concise language in the rule was a focal point.

### **A. Summary of the rulemaking activities**

DOSH first began a project to work on the fall protection rules in the spring of 2004. DOSH began to review the fall protection requirements in Chapter 296-24 WAC, General Safety and Health Standards and Chapter 296-155 WAC, Safety Standards for Construction. Initial considerations were given to creating one fall protection rule to apply to both general industry and the construction industry. However, as work progressed on this “single fall protection standard”, it became apparent to focus the project on the fall protection requirements in Chapter 296-155 WAC. The fall protection requirements were located in different sections under Chapter 296-155, resulting in some confusion and some of the requirements were not clearly written. In addition, the rules contained several outdated requirements and ambiguous specifications as well. DOSH decided to concentrate on clarifying and consolidating the two parts relating to fall protection in Chapter 296-155 WAC into one section.

In February 2007, DOSH created an ad hoc committee comprised of a diverse group of business and labor representatives to help develop a rule that combined the two sections into one section and was clear, enforceable, and addressed any gaps in the requirements and technical changes needed. The committee completed its work in September 2007 and the finished draft was sent to a broader group of stakeholders across the state. In the fall of 2007, four stakeholder meetings were held in Tumwater, Yakima, Spokane and Bellevue in order to provide all interested parties with the opportunity to review and comment on the draft. The draft was then updated based on the input received through these meetings.

In November, 2010, DOSH was preparing to file the proposed rules when the rulemaking was suspended per Executive Order 10-06 on November 17, 2010. Executive order 10-06 directed state agencies to suspend development and adoption of rules from November 17, 2010 through December 31, 2011. Another Executive Order (11-03) was put into place extending Executive Order 10-06 through December 31, 2012. In July, 2012, DOSH received an exemption from the Executive Order and DOSH was permitted to proceed with rulemaking. The proposed rules were filed on August 21, 2012. Two public hearings were held, one in Tumwater on October 16 and the other in Spokane on October 17, 2012.

## **II. Changes to the Rules (Proposed rule versus rule adopted):**

### **WAC 296-155-24603 Definitions.**

- Added the word “surface” into the definitions of “floor holes” and “floor openings” to be at least as effective as the Occupational Safety and Health Administration (OSHA). They now read, “Floor hole means an opening measuring less than twelve inches but more than one inch in its least dimension in any floor, roof, platform, or surface through which materials but not persons may fall, such as a belt hole, pipe opening, or slot opening.” “Floor opening means an opening measuring twelve inches or more in its least dimension in any floor, roof, platform, or surface through which persons may fall.”
- Added a definition for “positioning harness/belt” to match what is required by a National Consensus Standard and based on comment that reads, “Positioning harness/belt means a body support that meets the requirements specified in ANSI Z359.3-2007 that encircles and closes around the waist and legs with attachment elements appropriate for positioning work.”
- Added a sentence at the end of the definition “walking/working surface”, based on comment. It now reads, “Walking/working surface means any area including, but not limited to, floors, a roof surface, bridge, the ground, and any other surfaces whose dimensions are forty-five inches or more in all directions, through which workers can pass or conduct work. A walking/working surface does not include vehicles or rolling stock on which employees must be located in order to perform their job duties.”

### **WAC 296-155-24607 Fall protection required regardless of height.**

- Subsection (1): Replaced the words “rock crushing equipment” with “dip tanks”, based on comment. It now reads, “Regardless of height, open sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, such as dip tanks and material handling equipment, and similar hazards shall be guarded with a standard guardrail system.”
- Added a new subsection (2) relating to the guarding of floor holes or floor openings, based on comment. This was moved from WAC 296-155-24609. It reads, “(2) Floor holes or floor openings, into which persons can accidentally walk, shall be guarded by either a standard railing with standard toe board on all exposed sides, or a cover of standard strength and construction that is secured against accidental displacement. While the cover is not in place, the floor hole opening shall be protected by a standard railing”. This language is almost identical to what was previously in WAC.
- Added a note for clarity, it reads, “**Note:** Requirements for when guarding floor openings at heights of four feet or more are located in WAC 296-155-24609(4).”
- Renumbered subsection (2) to (3).

### **WAC 296-155-24609 Fall protection required at four feet or more.**

- Moved subsection (4) to WAC 296-155-24607 based on comment and renumbered the rest of this section.

**WAC 296-155-24611 Fall protection required at ten feet or more.**

- Subsection (1)(b): Removed the words “on low pitched surfaces”, it now reads, “Constructing a leading edge;”. This language was inadvertently left in the proposed rule.

**WAC 296-155-24613 Fall arrest specifications.**

- Subsection (1)(l): Added the words “or equivalent” and “rope” to be consistent with Chapter 296-59 WAC, Safety Standards for Ski Area Facilities and Operations. It now reads, “Droplines or lifelines used on rock scaling operations, or in areas where the lifeline may be subjected to cutting or abrasion, shall be a minimum of seven-eighths inch wire core manila rope or equivalent. For all other lifeline applications, a minimum of three-fourths inch manila rope or equivalent, with a minimum breaking strength of five thousand pounds, shall be used.”

### III. Summary of Comments Received and Department Response

General Comments	Department Response
<p>The new rules do not address rolling stock requirements for fall protection. While it is important for workers to have fall protection, to set up a complete fall protection system to tarp/cover a load, or do load securement is extremely burdensome to small business especially. We request that the department clearly exempt these pieces of equipment as that is your current practice (not listed in rules) anyhow.</p>	<p>The department appreciates your comment.</p> <p>The department has not in the past enforced the four foot requirement of walking/working surface for rolling stock.</p> <ul style="list-style-type: none"> <li>For clarification, the department added the following language to the definition of “walking/working surface”: “A walking/working surface does not include vehicles or rolling stock on which employees must be located in order to perform their job duties.”</li> </ul>
<p>The one issue I would like to see is a stated exemption of rolling stock from the walking/working surface definition.</p>	<p>The department appreciates your comment.</p> <p>The department has not in the past enforced the four foot requirement of walking/working surface for rolling stock.</p> <ul style="list-style-type: none"> <li>For clarification, the department added the following language to the definition of “walking/working surface”: “A walking/working surface does not include vehicles or rolling stock on which employees must be located in order to perform their job duties.”</li> </ul>
<p>Rolling stock is an issue. It has been exempted by OSHA and we are talking about four feet or higher. We are talking about rolling stock being in there and that we need to provide protection for that on four feet. Why have we not considered exempting that or when it comes to enforcement how does that work when small business has those vehicles out there and whatever addendum or whatever thing we need to do to correct that in the industry, as hiring or bringing out a</p>	<p>The department appreciates your comment.</p> <p>The department has not in the past enforced the four foot requirement of walking/working surface for rolling stock.</p> <ul style="list-style-type: none"> <li>For clarification, the department added the following language to the definition of “walking/working surface”: “A walking/working surface does not</li> </ul>

consultant, when and how will that be addressed to be in compliance?	include vehicles or rolling stock on which employees must be located in order to perform their job duties.”
Mobile equipment. I have not had a chance to look at that part of it, but mobile equipment, if it includes trucking there should be an exemption for that. Out on the roadway when drivers need to maybe get up and in and out of their truck or tarping and untarping and things like that, there is no opportunity for guardrails in those situations, and that would be particularly burdensome for small business owner/operators.	<p>The department appreciates your comment.</p> <p>The department has not in the past enforced the four foot requirement of walking/working surface for rolling stock.</p> <ul style="list-style-type: none"> <li>For clarification, the department added the following language to the definition of “walking/working surface”: “A walking/working surface does not include vehicles or rolling stock on which employees must be located in order to perform their job duties.”</li> </ul>
Monitoring system, when we have people go up and have a monitoring system and the monitor, what are their limitations as in a maintenance realm, going up to do maintenance on an air conditioner, is there a monitor and is that going to be an option?	<p>The department appreciates your comment.</p> <p>In the rule we have implemented the safety watch system to help employers when work is being conducted on a low pitched roof. The safety watch allows for a worker and an additional person acting as the safety watch to go up on a low pitched roof to work on mechanical equipment. The specific requirements can be found at WAC 296-155-24615(6).</p>
The clarification between fall protection at four feet versus ten feet is very well explained.	The department appreciates your comment.
I am glad to see everything combined to help give guidance on when and where fall protection is needed, no matter what a person is doing.	The department appreciates your comment.
Fall rule as it relates to confined spaces. Suggest specific language to include attendant for confined space entry as controlling access to confined space is part of their duty anyway (think of entry into a vault through manhole). Each rule states that attendant shall have no other duties. Could be interpreted as needing two attendants, one for confined space and another for fall protection.	<p>The department appreciates your comment.</p> <p>We have confined space requirements that need to be followed in Chapter 296-809 WAC that addresses the attendant to a permit confined space. The requirements of this person would include keeping people out of the area where the confined space activity is taking place. If there is</p>

	no confined space entry taking place, then the requirements of WAC 296-155-24609 (5)(f) would need to be followed. We would not require two attendants as long as the work activity taking place followed the specific standard.
<b>WAC 296-155-24603 Definitions</b>	
We greatly appreciate hazardous slopes being defined in the rule as a result of our testimony at a past hearing. We feel that having clarity makes work sites safer as all parties are able to understand expectations.	The department appreciates your comment.
We hope you will consider including a definition of a positioning harness/belt. For the same reasons as including a definition of hazardous slope, this will enhance understanding of expectations.	<p>The department appreciates your comment.</p> <p>The department added a definition for “positioning harness”. It reads, ““Positioning harness/belt means a body support that meets the requirements specified in ANSI Z359.3-2007 that encircles and closes around the waist and legs with attachment elements appropriate for positioning work.”</p>
<b>WAC 296-155-24605 General requirements</b>	
It appears that the activity of installing and removing fall protection equipment is specifically exempted in this section from several parts of the fall protection requirements. We support that provision but it is unclear what criteria will be used with respect to individuals engaged in installing and removing fall protection equipment. We believe it would be best for the department and for those required to comply with this rule to have a better understanding of how this provision will be applied and we respectfully request a small work group of employers and employees engaged in the construction industry and the department to discuss and develop such criteria to be included in the final rule.	<p>The department appreciates your comment.</p> <p>The department’s response to the comment would be better addressed through a compliance and consultation directive to DOSH staff. To add this to the rule would take away from the effort and goal to provide protection to the worker and delay the effective date of this rule. In addition, internal and external training is being developed and will be implemented through our outreach program.</p> <p>We appreciate your suggestion and have given your input thoughtful consideration. The department would welcome your participation with the development of training materials through our outreach program.</p>
<b>WAC 296-155-24607 Fall protection required regardless of</b>	

<b>height</b>	
WAC 296-155-24607 uses an example of rock crushing operation, however these types of operations are not DOSH jurisdiction, rather that of MSHA. We request for clarity, the example be changed to one that is DOSH jurisdiction.	<p>The department appreciates your comment.</p> <p>The department replaced “rock crushing equipment” with “dip tanks”.</p>
There is a reference to rock crushing operations, and it is used as an example. I think it creates some controversy that is unnecessary when rock crushing operations are not part of the WAC code or under DOSH jurisdiction. I think it would be very simple to replace that with any other production or maintenance or anything that other dangerous activity, you would not have that conflict.	<p>The department appreciates your comment.</p> <p>The department replaced “rock crushing equipment” with “dip tanks”.</p>
<b>WAC 296-155-24609 Fall protection required at four feet or more</b>	
The fall protection requirement for floor openings is currently regardless of height; however these new rules propose to require fall protection at 4 feet. As floor openings are a tripping hazard (one of the #1 cause of injury and death on the job) we would like to understand why that requirement is being relaxed to a 4 foot trigger height and how that enhances safety on the job.	<p>The department appreciates your comment.</p> <p>The department moved WAC 296-155-24609(4) relating to the guarding of floor holes or floor openings to WAC 296-155-24607 to be consistent with the current rule requirement under WAC 296-155-505(4), which requires the guarding of floor opening and floor holes regardless of height. Specifically, the requirements in the current rule are as follows:</p> <ul style="list-style-type: none"> <li>• WAC 296-155-505(4)(a) requires floor opening be guarded by a standard railing and toe boards or covers, as specified in WAC 296-155-505(4)(g) and WAC 296-155-505(7).</li> <li>• WAC 296-155-505(4)(h) requires floor opening into which persons can accidentally walk likewise be guarded by a standard railing and toe board on all exposed sides or a floor cover.</li> </ul> <p>This change does not result in an increase in requirements but keeps the requirements the same as in the current rule.</p>



<p>A discrepancy has been mentioned related to the trigger height for fall protection related to floor holes, floor openings, roof openings including skylight openings. DOSH representatives assured that this would be eliminated during the rule-making hearings/comment process. I am submitting this e-mail as a reminder of this issue and DOSH's commitment to resolve it. Please note that this reminder in no way suggests or supports an increase in protection requirements beyond what has been allowed under the current rule-making process. Rather, it is a request that the end result of actions taken be a final rule that contains all requirements that satisfy OSHA and DOSH. It has taken years for the re-write to be completed. The goal of the process was to have all requirements once again appear in the rule and not be reliant on directives or other sources. Thanks, in advance, for your efforts on this.</p>	<p>The department appreciates your comment.</p> <p>The department moved WAC 296-155-24609(4) relating to the guarding of floor holes or floor openings to WAC 296-155-24607 to be consistent with the current rule requirement under WAC 296-155-505(4), which requires the guarding of floor opening and floor holes regardless of height. Specifically, the requirements in the current rule are as follows:</p> <ul style="list-style-type: none"> <li>• WAC 296-155-505(4)(a) requires floor opening be guarded by a standard railing and toe boards or covers, as specified in WAC 296-155-505(4)(g) and WAC 296-155-505(7).</li> <li>• WAC 296-155-505(4)(h) requires floor opening into which persons can accidentally walk likewise be guarded by a standard railing and toe board on all exposed sides or a floor cover.</li> </ul> <p>This change does not result in an increase in requirements but keeps the requirements the same as in the current rule.</p>
<p>Subsection (5)(f) dictates that fall protection systems are required during paving operations around manholes. When manhole covers are adjusted during a paving operation, they are adjusted as the paver moves along. It would be impossible to pave around a manhole with guardrails. We request the department address this issue by exempting the requirement for guardrails during manhole paving operations unless the manholes are left unattended.</p>	<p>The department appreciates your comment.</p> <p>The department believes that it has addressed this request in WAC 296-155-24609 (2)(a)(iii), if a manhole cover is removed, we would look at a standard guardrail be installed, if this is not practical, then the department would accept a monitor as described in WAC 296-155-24609 (2)(a)(iii): When guardrails must be temporarily removed to perform a specific task, the area shall be constantly attended by a monitor until the guardrail is replaced. The only duty the monitor shall perform is to warn persons entering the area of the fall hazard.</p>
<p>I understand an unprotected manhole would pose a hazard; however, during road construction, and particularly paving</p>	<p>The department appreciates your comment.</p>

operations, whether its asphalt or concrete, these manholes need to be adjusted as the paving operation goes by. And that just basically involves removing the lid, putting a riser on, waiting for the paving operation to go by and then replacing the lid. And that obviously could not be possible with the guardrail in present so I think there should be some additional language in the rule that states that manholes being adjusted as part of paving, repaving operation or a change in the grade of a roadway that is actively being raised or lowered, need not a guardrail unless it's unattended.	The department believes that it has addressed this request in WAC 296-155-24609 (2)(a)(iii), if a manhole cover is removed, we would look at a standard guardrail be installed, if this is not practical, then the department would accept a monitor as described in WAC 296-155-24609 (2)(a)(iii): When guardrails must be temporarily removed to perform a specific task, the area shall be constantly attended by a monitor until the guardrail is replaced. The only duty the monitor shall perform is to warn persons entering the area of the fall hazard.
The way this is written, there are no options, just a guardrail system. Suggest same language as when guardrail system must be temporarily removed as opening a manhole is nearly always temporary: (5) Guarding of floor openings. (f) Manhole floor openings shall be guarded by standard covers which need not be hinged in place. While the cover is not in place, the manhole opening shall be protected by standard guardrail system.	The department appreciates your comment.  The department believes that it has addressed this request in WAC 296-155-24609 (2)(a)(iii), if a manhole cover is removed, we would look at a standard guardrail be installed, if this is not practical, then the department would accept a monitor as described in WAC 296-155-24609 (2)(a)(iii): When guardrails must be temporarily removed to perform a specific task, the area shall be constantly attended by a monitor until the guardrail is replaced. The only duty the monitor shall perform is to warn persons entering the area of the fall hazard.
Subsection (9): Hazardous slopes. Employees exposed to falls of four feet or more while working on a hazardous slope shall use personal fall restraint systems or positioning device systems. Suggest inserting word "secondary" in "Employees exposed to secondary falls of four feet..." to clear up interpretative issues of vertical fall after steep slope being 4' high rather the height of the steep slope itself.	The department appreciates your comment.  The language in the new rule states that if a worker were to be on a hazardous slope and the worker would experience a fall of four feet or more, that fall protection would need to be implemented. Calculating the fall distance means the actual distance from the workers support to the level where a fall would stop. The slope provides support for the worker. To add "secondary" would create confusion and not add clarity to the application of the requirement.
<b>WAC 296-155-24615 Fall Restraint specifications</b>	

Like the safety watch procedures found in this section.	The department appreciates your comment.
I want to address the monitoring system. When we have people go up and have a monitoring and the monitor, what are their limitations as in a maintenance realm, going up to do maintenance on, say an air conditioner, things like that, is there a monitor and is that going to be an option?	<p>The department appreciates your comment.</p> <p>In the standard we address the safety monitor for roofing and leading edge work in conjunction with a warning line. The activity you are referring to would not be allowed to implement the monitor system, because this activity is not roofing or leading edge work.</p> <p>We have a new system called the safety watch in the rule. Though there might be some similarities to the leading edge and roofing safety monitor, the system is specific to work on a low pitched roof conducting repair or servicing work. The safety watch can only watch one person at a time. See WAC 296-155-24615(6).</p>